

## CLAIMS

1 1. A communication service system providing a  
2 connection service between at least one subscriber  
3 apparatus and a network comprising:

4           a subscriber line concentrator provided  
5 between said subscriber apparatus among  
6 communication apparatuses used for said connection  
7 service and said network to record connection history  
8 information data relating to a connection history  
9 between said subscriber apparatus and said network,  
10 and concentrating said subscriber apparatus; and

11           a communication managing apparatus  
12 calculating a usage fee of said subscriber apparatus  
13 and said subscriber line concentrator lent out, on the  
14 basis of said connection history information data  
15 recorded in said subscriber line concentrator among  
16 said communication apparatuses used for said  
17 connection service.

1 2. A communication service providing method in a  
2 communication service system providing a connection  
3 service between at least one subscriber apparatus and  
4 a network, comprising the steps of:

5           a lending step of lending a communication  
6 carrier providing said connection service a  
7 subscriber line concentrator possessed by an

8 equipment vendor selling or lending communication  
9 apparatuses used in said communication service system  
10 to said communication carrier, and retaining a  
11 connection history between said subscriber apparatus  
12 lent from said communication carrier and said network  
13 and concentrating said subscriber apparatus;

14 a recording step of recording, by said  
15 communication carrier, connection history  
16 information data relating to said connection history  
17 in said subscriber line concentrator lent out at said  
18 lending step;

19 an obtaining step of obtaining, by said  
20 equipment vendor, said connection history  
21 information data recorded at said recording step; and

22 a calculating step of calculating, by said  
23 equipment vendor, a usage fee of said subscriber  
24 apparatus and said subscriber line concentrator lent  
25 out, on the basis of said connection history  
26 information data obtained at said obtaining step.

1 3. A communication service providing method in a  
2 communication service system providing a connection  
3 service between at least one subscriber apparatus and  
4 a network, comprising the steps of:

5 a selling step of selling a subscriber line  
6 concentrator managing a connection history between  
7 said subscriber apparatus and said network and

8 concentrating said subscriber apparatus from an  
9 equipment vendor selling or lending communication  
10 apparatuses used in said communication service system  
11 to a communication carrier providing said connection  
12 service to a company lending said communication  
13 apparatuses;

14 a lending step of lending said subscriber  
15 line concentrator from said company to said  
16 communication carrier;

17 a recording step of recording, by said  
18 communication carrier, connection history  
19 information data relating to said connection history  
20 in said subscriber line concentrator lent out at said  
21 lending step;

22 an obtaining step of obtaining, by said  
23 company, said connection history information data  
24 recorded at said recording step; and

25 a calculating step of calculating, by said  
26 company, a usage fee of said connection service on said  
27 subscriber apparatus and a usage fee of said  
28 subscriber apparatus and said subscriber line  
29 concentrator lent out, on the basis of said connection  
30 history information data obtained at said obtaining  
31 step.

1 4. A subscriber line concentrator provided between at  
2 least one subscriber apparatus and a network among

3 communication apparatuses used in a communication  
4 service system providing a connection service between  
5 said subscriber apparatus and said network to  
6 concentrate said subscriber apparatus, said  
7 subscriber line concentrator comprising:

8           a recording unit recording connection  
9 history information data relating to a connection  
10 history between said subscriber apparatus lent from  
11 a communication carrier providing said connection  
12 service and said network; and

13           a transmitting unit transmitting said  
14 connection history information data recorded in said  
15 recording unit to a communication managing apparatus  
16 possessed by an equipment vendor selling or lending  
17 said communication apparatuses to said communication  
18 carrier and managing said connection history.

1 5. A communication managing apparatus being able to  
2 obtain data from a subscriber line concentrator  
3 concentrating at least one subscriber apparatus among  
4 communication apparatuses used in a communication  
5 service system providing a connection service between  
6 said subscriber apparatus and a network, said  
7 communication managing apparatus comprising:

8           an obtaining unit obtaining connection  
9 history information data relating to a connection  
10 history between said subscriber apparatus lent from

11 a communication carrier providing said connection  
12 service and said network from said subscriber line  
13 concentrator; and

14 a calculating unit calculating a usage fee  
15 of said subscriber apparatus and said subscriber line  
16 concentrator lent out, on the basis of said connection  
17 history information data obtained by said obtaining  
18 unit.

1 6. The subscriber line concentrator according to  
2 claim 4 further comprising a receiving unit receiving  
3 said connection history information data of each of  
4 said subscriber apparatuses from said communication  
5 managing apparatus.

1 7. The subscriber line concentrator according to  
2 claim 4, wherein said recording unit records said  
3 connection history information data obtained from the  
4 time that communication between said subscriber  
5 apparatus and said network becomes possible to the  
6 time that the communication between said subscriber  
7 apparatus and said network is cancelled.

1 8. The communication service providing method  
2 according to claim 3, wherein, at said calculating  
3 step, said usage fee is fixedly determined on the basis  
4 of the number of said subscriber line concentrators

5 and the number of said subscriber apparatuses.

1 9. The communication service providing method  
2 according to claim 3, wherein, at said calculating  
3 step, said usage fee is selectively determined within  
4 a range from the number of said subscriber line  
5 concentrators to the number of said subscriber  
6 apparatuses concentrated by each of said subscriber  
7 line concentrators.

1 10. The communication service providing method  
2 according to claim 2 further comprising the steps of:  
3 a first collecting step of collecting, by  
4 said communication carrier, said usage fee calculated  
5 at said calculating step from a subscriber; and  
6 a second collecting step of collecting, by  
7 said equipment vendor, said usage fee collected at  
8 said first collecting step from said communication  
9 carrier.